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ABSTRACT

The aim of this booklet is to: (1) help prepare British teachers for the challenge of having a hearing-impaired child in regular classes; (2) provide practical advice for these teachers to use in the classroom; and (3) suggest further sources of information and reading. Chapters provide information on: support services for hearing impaired children; assessment of hearing ability; implications of hearing loss; hearing aids; lipreading or speech reading; practical suggestions for aiding the understanding of the hearing-impaired child during lessons; the hearing-impaired infant and preschooler; the hearing-impaired elementary school student; the hearing-impaired secondary school student; specific questions raised by teachers (student participation in physical education and games, ear soreness, use of aids, inattention); and employment services for hearing-impaired persons. Fourteen books dealing with the hearing impaired are listed. (CB)

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HEARING IMPAIRED CHILD IN YOUR CLASS

A Guide for Teachers in Ordinary Schools

ED280203

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PREFACE

The placement of deaf children in ordinary classes for all or part of the time is not new. Special classes supporting deaf children in ordinary schools first appeared in the late 1940's in London and Manchester and proliferated in the late 1960's.

Two reasons, however, have prompted the production of this booklet. Firstly, the implementation of the Education Act 1981 is resulting in increased pressure to place deaf children in ordinary classes and, secondly, we are becoming more aware of the serious implications for learning of even a slight hearing loss and of the large size of this population in schools.

The success of a placement in an ordinary class is to a considerable degree dependent upon the existence of appropriate support services and the extent to which the class teacher is able to integrate these services within their own teaching strategy.

With this in mind the **AIM OF THIS BOOKLET** is to help to:

(i) prepare a school and class teacher for the challenge of having a hearing impaired child in an ordinary school;

(ii) give some practical advice for the class teacher to use in the classroom;

(iii) provide suggestions for further sources of information and reading.

It should be noted that practice varies around the country and therefore specific details may be inappropriate to your area. In addition this booklet is only an introduction to the topic. Specialist advice should be sought from the local peripatetic or advisory teacher for the deaf.

Finally, comments regarding this booklet or suggestions for improvement would be welcomed.

NOTES

1. The terms deaf and hearing impaired are used synonymously in this booklet.

2. The term Nursery, Infant, Junior and Secondary stages have been followed to give a developmental approach to the implications of hearing loss throughout school life and are not intended to indicate precise time periods.

Any comments should be sent to:

The Royal National Institute
for the Deaf
105 Gower Street
London WC1E 6AH

1 SUPPORT SERVICES FOR HEARING IMPAIRED CHILDREN

Within each Local Education Authority there is a Service for the Hearing Impaired usually with a Head of Service or Senior Advisory/Peripatetic teacher in charge. Arrangements vary from LEA to LEA but the usual pattern of services includes, guidance for parents with pre-school hearing impaired children and educational support for hearing impaired children placed full time either in ordinary schools or special schools dealing with other types of disability. Most Services now provide support for hearing impaired students in Colleges of Further Education and may extend this to those in Higher Education. The Service plays an important part in the assessment and placement of hearing impaired children. In many instances this may include audiological assessment in co-operation with the Local Health Authority. There is usually close liaison between the Head of Services, the Special Units for the hearing impaired and the Head Teachers of the schools in which these are placed.

SCHOOL AGE CHILDREN

The majority of children with a hearing impairment will not attend a school with a Special Unit for hearing impaired but will attend their neighbourhood school. The nature of support available usually ranges between advisory services to class teachers to direct tutoring support for individual children. The advisory/peripatetic teacher of the deaf from the Service for the Hearing Impaired will be the main source of specialist help and advice.

The advisory/peripatetic teacher may also be involved in liaison with parents and may be able to help on a much wider basis than the child's learning programme and hearing aid management.

The hearing impaired child in your class may be supervised from a Unit for the hearing impaired within the school. In this case you will be able to consult with the teacher of the deaf whenever you wish. Such matters as support and follow up of work carried out in your class to ensure the child understands certain concepts, can be discussed, as well as difficulties with the hearing aid equipment, social integration or any other matters concerning the child's needs and how they can be tackled.

PRE-SCHOOL STAGE

It is vital that the young hearing impaired child should receive intensive language input from the earliest stage. As soon as deafness is diagnosed, therefore, the Service provides guidance for the parents on how to do this through advisory/peripatetic teacher of the deaf. In most cases they will make frequent and regular visits to the home. At an appropriate stage it is often recommended that the child should go to a local nursery or pre-school playgroup. When this happens detailed guidance is also available for the staff from the advisory/peripatetic teacher, who will usually be able to make arrangements to visit the nursery.

OTHER PROFESSIONALS

Hearing impaired children with specific difficulties may sometimes be seen by a Speech Therapist. Support may also be given by a Social Worker where there are particular

problems at home.

Assessments and reports are made by an Educational Psychologist and an Audiologist. Monitoring of the child's health is carried out by the School Medical Officer and the child is likely to make regular hospital visits to see an ENT (ear, nose and throat) Specialist.

THE STATEMENT

Hearing impaired children in Units and some of those in ordinary classes who receive support from a advisory/ peripatetic teacher of the deaf will have had a 'Statement' made about them (under the Education Act 1981). This is a statutory document describing the hearing loss and any other medical conditions which may be present, the educational functioning of the child, his/her special needs and any other relevant information together with the educational placement recommended. This is based on assessments and recommendations made by the Service for the Hearing Impaired, Educational Psychologist, Audiologist, medical personnel and any other professionals who might be involved, including the Head teacher of the ordinary school if the child is already placed there. The child's parents will have been fully consulted and the 'Statement' will have to be agreed by them and the Local Education Authority.

MONITORING THE CHILD'S PROGRESS

The child's education placement and progress are reviewed regularly by the professionals already mentioned. Formal 'Statements' are required to be reviewed within every 12 months. Parents should be given information and consulted. A report will be required from the school. Your contribution to this

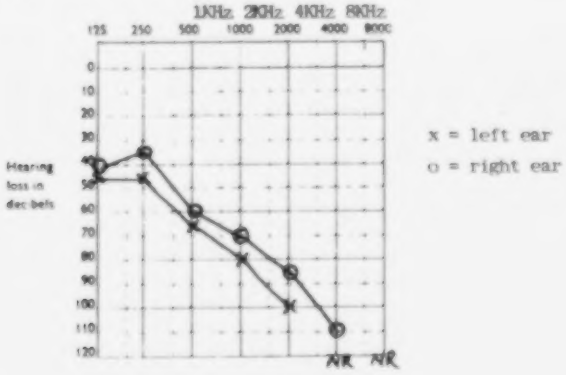
and the assessment of how much support is needed will be very valuable, although the Head teacher has the responsibility to compile the report. Satisfactory educational progress, indeed the overall success of a placement in an ordinary class is largely dependent on providing appropriate support if and when necessary. The class teacher is in the best position to notice the effects of deafness on a day-to-day basis. If a child begins to fall behind, appear unduly disinterested or unhappy it is important to review the situation immediately. Some difficulties may be overcome by additional short-term tutoring support if dealt with quickly, but may develop into serious problems with delay. Detailed record keeping of the child's progress and needs within the school, both educationally and socially, will not only help this process but will enable temporary staff in your absence or the teacher who has the child in the following year to tackle those needs quickly and efficiently. It is particularly important to review a child's needs and the planned support to meet those needs at transition to Infant, Junior, Secondary and Further or Higher Education.

2 MEASURING THE AMOUNT OF HEARING

The most usual way of measuring hearing is to use an Audiometer which produces tones at different loudness (intensity) and pitch (frequency). The child listens to these through head phones. The point at which the sound is just detected is recorded on an Audiogram. This is a graph showing loudness in dB (decibels) and frequently in Hz (Hertz). This can be seen in the following Audiogram.

Audiogram showing one example of sensori-neural hearing loss.

The inner ear or cochlea nerve system beyond it is affected.



NR = No response to the loudest sound produced by the Audiometer.

Measuring the amount of hearing

Intensity (Loudness). This is measured in decibels (dB).

The following examples give you an idea of what this means in practical terms.

Decibels	Daily experience
0 - 20dB	Normal threshold of hearing where you can just about detect a sound
30dB	A quiet whisper
40dB	Quiet speech
60dB	Normal conversation at about 3 feet away
80dB	Shouting at about 3 feet away
100dB	A pneumatic drill very close
120dB	A jet aeroplane at about 400 yards away
140dB	A jet aeroplane close to - pain is experienced.

An ability to just detect a sound between 0dB and 20dB on the audiometer is usually considered to be within normal limits.

Frequency (Pitch). This is measured in Hertz (Hz).

The points marked on the Audiogram are octaves. The number of Hz doubles for each octave. 250Hz is almost the same as middle C (256Hz) in music. 125Hz is an octave below. 500Hz is an octave above. Speech consists of fleeting sounds involving a complexity of frequencies. 1000Hz is in the middle of the range used.

Residual hearing. This is the hearing which is left even though it may need a very loud sound before it can be detected. There are very few children who are totally deaf to the loudest sounds made by an Audiometer. Hearing aids are now so powerful that some use can be made of even small amounts of residual hearing.

3 IMPLICATIONS OF HEARING LOSS

There are two main types of deafness.

CONDUCTIVE DEAFNESS

In this case the entrance to the ear up to the eardrum or the middle ear is affected. The latter is a cavity beyond the eardrum which has a chain of three minute bones leading to the nerve system of the inner ear called the cochlea. In most cases with children, conductive deafness is caused by fluid in the middle ear or a blockage of the Eustachian tube which runs from the middle ear to the back of the throat. This may only last for a short period with a cold or ear infection. However, it can persist, especially in young children and, if this is the case, it can affect their learning. It has been found, for instance, that it can retard the child's understanding and use of the spoken language and significantly depress reading abilities. Difficulties may occur in all learning areas. This type of deafness will usually respond to medical treatment.

Conductive hearing loss is likely to affect all frequencies in a similar fashion. Children with this type of loss will find it difficult to: a) hear quiet talk; b) discriminate ordinary conversation several feet away or in noisy conditions. Such a child can be very frustrated by only 'half' hearing things. This kind of deafness fluctuates and thus can be much worse some days than others. There are genuine reasons, therefore, why sometimes children in

these circumstances can hear reasonably well, yet on many other occasions has great difficulty. Children may not require a hearing aid but do need to be close to the teacher or other children to properly hear what is being said.

SENSORI-NEURAL DEAFNESS

This is where the inner ear or nerve system beyond it has been affected. It cannot be medically treated. It is usually more severe than a conductive hearing loss. Nearly every child who has a hearing aid will have this type of deafness. In many cases the child hears low pitched sounds much better than high frequencies. An example of this can be seen in the illustration of an Audiogram on page 9. At 2000Hz, for instance, the tone has to be made 100dB in loudness before the child can just detect it in the left ear and there is no response to the loudest sound given on the Audiometer at 4000Hz in the left ear or 8000Hz in both ears.

Information about the vowels together with rhythm, intonation and stress is mainly carried in the low frequencies. A child may be able to make sufficient use of his/her low frequency residual hearing to discriminate vowels with the use of a hearing aid, however, depending on the loss in this area may gain little or nothing from the high frequencies. It is primarily the high frequencies which the hearing listener uses to distinguish consonants. The importance of consonants is especially noticeable when removed from a simple sentence.

-a-e -ou -a--e- i- -ou- -o-e-o-- -e-?
Have you handed in your homework yet?

Although a child with little hearing in the high frequencies

may pick up some secondary clues in the low frequencies it is still difficult to discriminate consonants. This is reflected in hearing impaired children's speech where consonants are often omitted or mispronounced. Sensori-neural deafness and conductive deafness can be present at the same time. In other words children known to be hearing impaired are still susceptible to contracting conductive deafness. It is important therefore for teachers to pay attention to apparent deterioration in hearing which cannot be attributed to a malfunction of the hearing aid. This should be reported to the headteacher as medical referal may be required.

HEARING AIDS

A hearing aid can amplify speech and therefore make it more accessible and stable for the child. It may also be able to boost the high frequencies if there is residual hearing in this area without making the low frequencies too loud. It can therefore considerably increase the child's chances of making sense of what he or she can hear.

LIMITATIONS OF A HEARING AID

A hearing aid cannot restore hearing to normal in the same way that glasses may restore sight for many people by sharply focusing a previously blurred image. Speech is still distorted because in most cases a large number of nerve endings will have been irreparably damaged. In making speech louder the hearing aid will also amplify unwanted background noise. Furthermore, its effect diminishes as the distance from the speaker to the wearer increases, so that the child will need to

a) be fairly close to the speaker
b) watch the speaker's face and use lipreading

to assist comprehension

c) have reasonably quiet listening conditions where possible

LIPREADING (SPEECHREADING)

Lipreading is another important source of information for a hearing impaired child. Ensuring that the child can see your face clearly will help considerably. Again, however, this is an aid and not a panacea for overcoming all communication difficulties. Ready help from lip-reading is not always possible, even when the speaker can be clearly seen. This is because some sounds of speech have no readily visible clues (for example, 's', 't', 'd', 'k', 'g') and because some that have visible positions or movements are too easily confused. For instance, in the case of words with 'p', 'b', and 'm' can you tell the difference when someone says pan, ban or man without using their voice?

GENERAL ATTITUDE OF THE CHILD

A child with a hearing loss may develop the defensive habit of nodding and smiling to indicate agreement with a statement or a question that has not been understood. It can be easy to overlook the real difficulties in understanding experienced by a child who is deaf. Where a teacher sees inattention, daydreaming or even wilful disobedience from a child, it may in fact be due to deafness. "He can hear when he wants to", is often cited in good faith. This can often appear to be the case because, when familiar phrases are used in a familiar context, it is easier to comprehend.

LANGUAGE DEVELOPMENT

Even children with mild hearing losses experience some difficulty due to misunderstandings and confusions throughout their life.

VOCABULARY

The use and understanding of vocabulary will usually be affected. Its enrichment will often be an important consideration for a teacher.

READING

Word recognition scores are likely to be low. As a result reading material may need to take account of age and interests while still being comprehensible to the child.

WRITTEN ENGLISH

This is likely to reflect the limited linguistic experience of hearing impaired children. There may be words omitted; the endings of words missed out, particularly plurals and verb endings; confusion with tenses; a lack of complete sentences; and spelling may not be phonetically logical or may have letters missed out.

GENERAL KNOWLEDGE

Much of this is picked up by hearing children through overhearing others, particularly adults, or from radio and television. These opportunities are either not available or are restricted for the hearing impaired child. The more

severely deaf will find it very difficult to make sense of television programmes.

MATHS AND SCIENCE

Hearing impaired children are likely to be delayed in their grasp of mathematical and scientific concepts because of language limitations but many catch up as they grow older.

INTELLIGENCE

There is no difference between the intelligence of hearing impaired children and hearing children.

POTENTIAL

The rate of development of a child with a hearing loss will obviously be related also to age at which that loss was discovered, the presence or absence of any other disabilities (for example, poor vision, spasticity), home background, personality, the age at which the child's hearing became impaired and the appropriateness of the educational placement itself. Even if circumstances are to their advantage, many hearing impaired children may not achieve their potential because of the delaying affects of deafness on their understanding. Apart from those with low IQs and a general disability, hearing impaired children are not the same as 'remedial' children. Their potential is the same as that of normal children who are not in remedial groups. A number of bright hearing impaired children achieve 'O' and 'A' levels and some go on to Higher Education.

SOCIAL ASPECTS

It is important to appreciate that a hearing impairment may bring with it social and emotional problems.

A hearing impaired child in an ordinary school class will be under stress compared with other children and must always concentrate harder to keep up in lessons. There are few moments when attention can be relaxed and therefore the child may tire more easily.

A hearing impaired child may feel socially isolated because of his/her disability. It can be difficult to make friends if other children do not always understand one's speech and if they in turn are sometimes unintelligible. Sometimes children in the class will make fun of hearing impaired children because of strange speech or because a hearing aid is worn. On occasions children may develop the idea that others are taking advantage of their deafness to talk about them behind their backs. This is often without foundation but is a natural cause of insecurity. Discrete monitoring by the teacher of what is happening in the playground is often revealing. At the Primary stage problems may occur if the hearing impaired child does not understand the rules of either playground or organised games. Subtle intervention to encourage other children to teach those rules can change a daunting environment to an encouraging one in which the child is able to participate and be accepted. In common with all children increased confidence often emerges with an earned place in a team, acknowledged merit in some practical subject, or has being given specific responsibility.

DEVELOPING POTENTIAL

It is important to:

a) encourage the child to mix with a wide variety of children in the class. Sometimes there is a danger of grouping together hearing impaired pupils with other special needs children.

b) encourage the child to develop areas in which he or she can do well.

4 HEARING AIDS

MAIN CONSIDERATIONS FOR LISTENING THROUGH AN INDIVIDUAL HEARING AID

1. Make sure the child is fairly close to you when you are talking to the class.

2. When talking to the child individually, a distance of 3 feet is preferable.

3. If the child has a loss in only one ear, ensure he or she is sitting with the better ear towards you.

4. If you shout, your voice may be distorted by the hearing aid, and will therefore not aid perception.

INDIVIDUAL AIDS

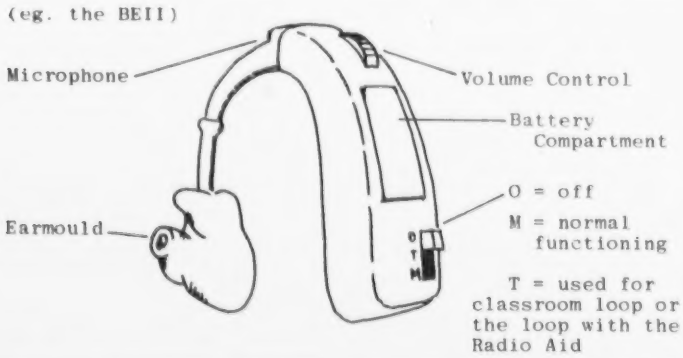
Children should be encouraged to maintain their own aids, but with infants and juniors a daily routine is necessary. Parents should make a daily check before the child comes to school but it is also helpful if the teacher can check that the hearing aid is working before lessons start. Sometimes one particular member of staff is given this responsibility. It is worth making arrangements with parents to have new batteries (together with leads and receivers where appropriate) so that they can be changed if necessary at any time of the day. It is very important that the hearing aid should be working properly at all times.

INFORMATION WHICH MAY HELP YOU WITH HEARING AIDS

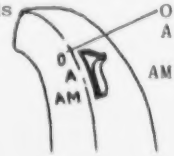
BEHIND-THE-EAR (POST AURAL) HEARING AIDS

Most hearing impaired children in ordinary schools wear behind-the-ear hearing aids. These have an earmould attached to them which is made to fit the individual child's ear. An impression is made of the ear with a pliable plastic compound and then the mould itself is created from this, tailormade to fit the particular child. If it is broken, or if the mould no longer fits snugly due to the child's growth, it is necessary for the parents to take the child to a hospital to have a new one made.

Here is a diagram of a typical behind-the-ear hearing aid.



Note: Some BTE aids have direct input facilities for a Radio Aid and the markings may be different.



Older children will adjust the volume themselves according to listening conditions and the class teacher should seek advice concerning younger children.

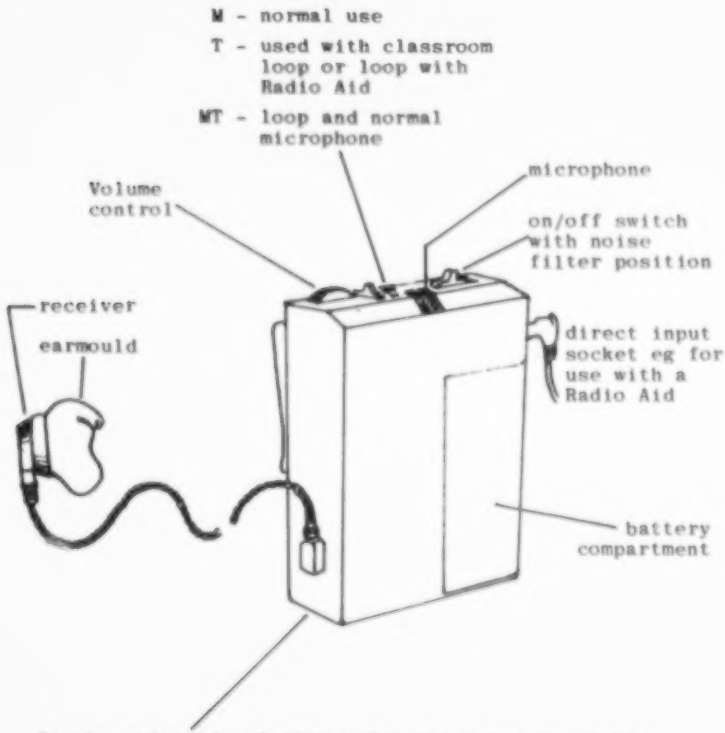
CHECKING THE BEHIND-THE-EAR (POST AURAL) HEARING AID
PRACTICAL STEPS (For teachers of young deaf children)

1. The Battery. To check this is working first turn off the aid. Then take it out of the child's ear. Turn the On/Off switch to 'M'. Turn the volume control wheel to the highest number. There should be a whistling noise. If this does not occur then check that the battery is correctly inserted. If there is still no whistling noise check the following:
2. The Earmould. If the small hole in the earmould is blocked with wax, this will need to be unblocked with a pipe cleaner and washed in warm water. Make sure there is no water left in the mould. If the hole is free of wax and there is no whistling, then it is likely that the battery will need replacing. Just pull the battery compartment flap up and insert a new battery the right way round.

If the aid does not produce a whistle when the earmould has been checked for wax and a new battery has been inserted; then the aid itself is likely to be faulty. If possible contact the parents or the teacher of the deaf the same day. Check with parents and the teacher of the deaf what the arrangements are.

The same applies if the aid persistently whistles when it is <u>in</u> the ear. This usually means that the mould is poorly fitting and arrangements will have to be made for a new one. Ask the child to turn down the volume control in the meantime as the whistling will be reducing the effectiveness of the aid.

An example of a body-worn hearing aid (Danavox 787PP)


M - normal use
T - used with classroom loop or loop with Radio Aid
MT - loop and normal microphone
Volume control
microphone
on/off switch with noise filter position
receiver
earmould
direct input socket eg for use with a Radio Aid
battery compartment

On the underside of this model there are two other controls. One is a tone control, the other an output limiter. They will be set by the teacher of the deaf and should be left untouched. If a child needs help with settings consult with the teacher of the deaf on how the aid can best be used.

PRACTICAL STEPS (For teachers of young deaf children).

CHECKING THE AID

Remove the earmould and ensure that it is not blocked with wax.

(See Behind-the-ear aid)

1. Battery Test. Turn the volume control to the highest number and ensure that the Microphone Loop Switch is on M. With the lead stretched out to about 12 inches a whistle should be heard. If there is no whistle, or if the whistle only occurs with the receiver and earmould a few inches from the aid, replace the battery. The battery compartment may be at the bottom or the back of the aid. Check that the battery/ies go into match the direction of the arrows.

2. Lead Test. Sometimes the whistle will go on and off if the lead is wiggled. Check that the plugs at each end of the lead are firmly fitted into the socket of the aid and the receiver. If the aid continues to go on and off, a new lead will be needed.

3. The Receiver. If this is cracked it should be replaced. If you have carried out these tests and the hearing aid does not whistle or appears to be still going on and off or is not working in any other way, inform the parents, or the advisory/peripatetic teacher of the deaf according to arrangements made with you. They may need to send it away for repair.

   DO NOT listen to a hearing aid yourself without turning

the volume down.

Older children. It may be helpful to periodically check that older children are monitoring the working of their hearing aid.

THE LOOP SYSTEM

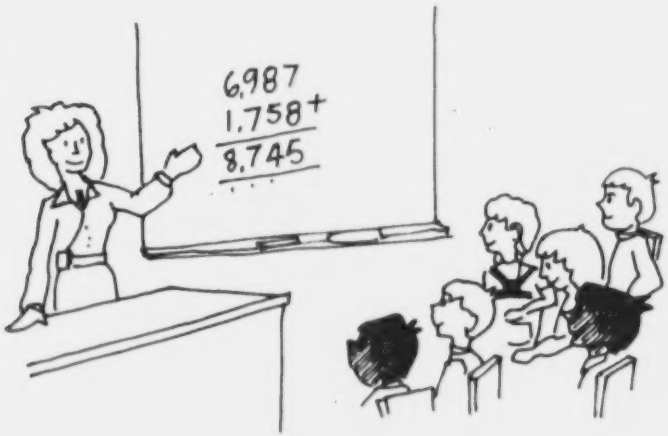
A loop system may have been fitted in your classroom. A loop of wire which will normally be attached to the ceiling, is plugged into an amplifier. A microphone is attached to a long lead which has to be plugged into the amplifier. You will need to wear the microphone round your neck. If the child switches the mic/loop switch on the hearing aid to position 'T', your voice will be heard without the interference of background noise. There will be some parts of the room where you can be heard more clearly through the loop than others so a hearing impaired child will need to sit at one of these places for good reception when the loop is used. Although your voice will be heard more clearly - as though you were very close - the voices of the other children in the class will not be heard; you will need to repeat what they say when questions or discussions arise. Try to ensure that the microphone hangs high up on the chest (about 4-5 inches from the mouth).

If a loop is being used in an assembly hall, the microphone can be placed on a stand. This system, however, is only effective if the person is speaking close to the microphone. It can also be used with a radio, tape recorder, video or television if a lead is plugged from the extension socket of these to the input socket of the loop amplifier. With a television or video, an isolating transformer must be added and checked by a qualified electrician. This system

has now largely been superseded by the Radio Aid.

RADIO AIDS

Compared with a Loop System in a room radio aids provide greater flexibility, consistent response throughout a classroom/assembly hall, better quality listening for a hearing impaired child and freedom from a lead for the teacher. They work on the same principle as a 'Walkie talkie' or Citizens' Band Radio set, but in this case it is a one-way system where only the teacher can transmit and only the child can receive the message. Transmitters have a microphone built into them and can simply be hung round the neck. It is also possible in some cases to wear the transmitter where most convenient and to have a very small microphone attached from it to a lapel, the top of a dress or tie.



"Radio-aids allow greater freedom of movement. Here the pupil is seen sitting at the side of the class to allow easier viewing of other speakers."

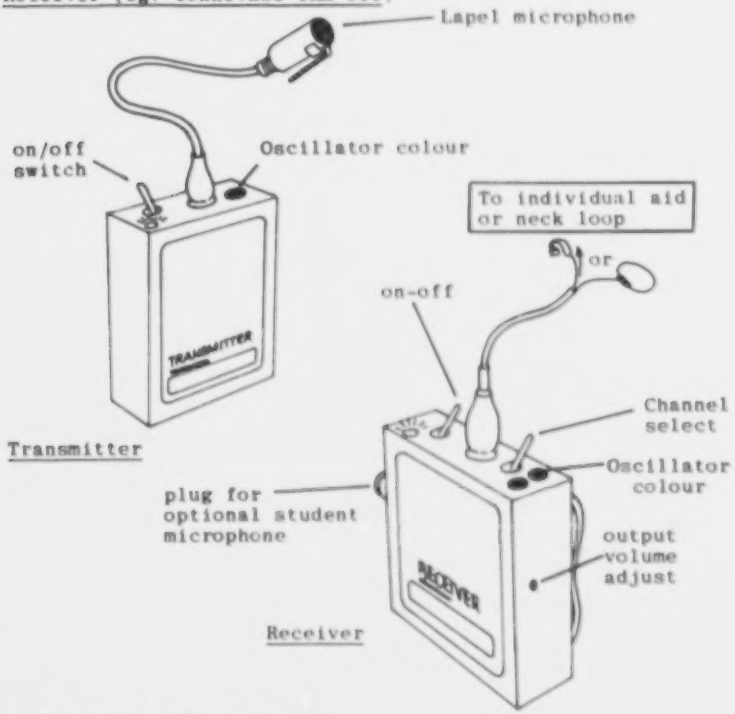
The child wears the receiver. In some models this is strapped on like a body-worn aid and has a lead coming from it which is plugged into an ear receiver. This in turn is clipped to an earmould which goes into the ear. In a number of older models both the transmitter and receiver have batteries built into them. As they require recharging after about 8 hours of use, there may be a period at the end of school or in the evening when the Radio Aid cannot be used because it is being recharged. More recently designed Radio Aids tend to be smaller and have removable batteries. Newly charged batteries can be put into them at any time power fades. In this case the Radio Aid receiver is worn together with the child's individual hearing aid/s. A lead can either go straight from the receiver to the child's aid or to a small protected loop of wire which hangs round the neck.

WHAT DOES THE RADIO AID DO?

It transmits the teacher's voice to the child directly through the microphone as though he or she is talking into the microphone of the child's normal hearing aid a few inches away. The child receives the teacher's voice at the volume needed no matter how far away the teacher is. Both can move in the classroom without the problem of varying distance which affects a normal hearing aid.

It also means that the teacher's voice drowns any of the surrounding noise in the classroom which would normally be picked up by a hearing aid. Both the transmitter and the receiver have an on/off switch. Ensure they are switched off when not in use so that the batteries can be conserved. If a child has a new type of Radio Aid, it needs to be switched to an appropriate setting (see diagrams of hearing aids) as well as the receiver being switched on.

An example of a Radio Hearing Aid - transmitter and Receiver (eg. Connevans CRM-100)



WHAT ABOUT OTHER CHILDREN?

The teacher should use the transmitter only when talking to the class or to a hearing impaired child directly as other children's voices will not be heard if the child wants to talk to them. On informal occasions in the classroom the child can switch some types of Radio Aid to position 'Mic', enabling other children to be heard when nearby. It does, however, introduce the rest of the noise in the room and the Radio Aid then is acting in the same

way as an individual aid.

In the case of newer models which are worn with the child's individual aid, there is sometimes an M/T or A/M position on the individual aid. This means the child can hear the teacher and the children but, again, noise is introduced. Although the teacher's voice will be relatively strong, the children's voices will be weak if they are at a distance and difficult to discriminate from the surrounding noise.

It is advisable to liaise with the teacher of the deaf to find out in detail what are the best uses of the Radio Aid during different teaching, learning and social situations during the day.

30

5 LIP READING (SPEECH READING)

Understanding of speech is considerably enhanced when residual hearing is supplemented by lipreading. The extent to which lipreading is used will depend on the particular child and the circumstances.

WAYS OF MAKING LIPREADING MORE USEFUL IN A SCHOOL SITUATION

1. Position

The child must be able to see clearly the face of the speaker

a) The light should be on the speaker's face and not in the child's eyes. It is very difficult to lipread if the speaker's back is to the window.

Suggestions

(i) Let the child sit near the window so that the light is on other people's faces.

(ii) Primary teachers can position their desk so that they have their back to a wall when they are sitting.

b) When talking the speaker should avoid
- walking to and fro

- having their back to a window
- turning completely round to write on the blackboard
- or standing behind the hearing impaired child standing in front of a reflective surface e.g. a white board (some people use pale green to compensate).

c) The child should not be so near to the teacher that their head has to be tilted back.

d) When reading to the class, ensure that the book does not obscure the full view of the face.

2. THE SPEAKER

a) The rate of speaking should be normal and not too quick.

b) The speaker should talk clearly.

c) Mouthing, whispering or shouting should be avoided as these destroy natural rhythm and intonation. (It also makes listening with a hearing aid difficult).

d) Talk should be presented in phrases not single words.

6 PRACTICAL SUGGESTIONS TO AID THE UNDERSTANDING OF HEARING IMPAIRED CHILDREN IN LESSONS

Many teachers automatically use the following techniques in the normal process of teaching and the purpose of this section is simply to underline their particular usefulness for hearing impaired children as aids to comprehension and lipreading.

1. Make it clear what topic you are going to talk about. A sound understanding of the initial points is very important. If a hearing impaired child has missed these, subsequent issues in the lesson will be difficult to grasp.

2. If possible, give the child an opportunity to find out a little about the subject beforehand. Parents may be helpful with this and older children may be able to read about it in advance.

3. Write up new vocabulary on the board or overhead projector, at the secondary level this is particularly helpful with new technical or descriptive vocabulary.

4. Write up key points of the lesson on the board or overhead projector.

5. Clarity of presentation of the points is important and the use of individual pictures, or a sequence of pictures, interesting objects, diagrams and dramatis-

ation help to get points over in a 'concrete' form.

6. When dealing with the child individually it may help to rephrase or simplify what you have said if it has not been understood at first.

PROBLEMS IN CLASS GROUP DISCUSSIONS

A hearing impaired child may often miss what other children say in a class/group lesson when using just the individual aid, especially if they are more than 6 feet away. If you are using a Radio Aid or the Loop the child can only hear the teacher's voice and cannot hear other children. The child will therefore have to rely very heavily on lipreading. In these circumstances it takes time to locate a speaker in the class. By the time a hearing impaired child finds out who is talking, the initial part of another child's idea will be missed making it difficult to make sense of the rest of the contribution. It is obviously particularly difficult if the contributor is behind the hearing impaired child.

PRACTICAL SUGGESTIONS

1. It is very helpful if the teacher repeats or summarises what other children have said so that the hearing impaired child has a 'second go' at it. This is a technique often used by teachers to ensure the class has grasped a point even if there is not a hearing impaired child present. Sometimes it can also help if the contributor is asked to state the idea again.

2. Let the child move place temporarily or turn round to see other children speaking.

7 THE NURSERY INFANT STAGE

A wide range of needs can occur among hearing impaired children at this stage. The ability to understand and talk will vary from the child who says very little, if anything, to one who is chattering away. Talk appropriate for the hearing child at each of these stages of development should be used and normal use of facial expression and natural gesture are to be encouraged. In the case of a child who says little phrases and short sentences with the occasional single word are appropriate just as with a very young hearing child. Talk of this kind, as opposed to largely single words, is very important as connected words convey units of thought. They also carry additional meaning through intonation, stress and rhythm when put together. These additional components are conveyed mainly by the low frequencies which are the very sounds that have probably been least affected by the deafness and can therefore be of use to the child. At this stage understanding of what people are saying will be largely confined to the immediate context. A child saying very little will need to absorb the meaning of words and phrases before making first attempts at them. A hearing impaired child will rely on direct talk from adults or other children for information and the extension of understanding. Incidental talk may make little sense. Frequent subtle intervention by adults using a Radio Aid or talking very close to the child will give the clear, direct input needed. In the cases of a child who is talking, an equally direct approach is needed to encourage further language development. This will be

at a different level. It should involve asking questions and encouraging the child to think on. There may be occasions when words are put together incorrectly. It can sometimes be helpful to expand this by simply saying the correct version yourself, so that a clear pattern of what should be aimed for can be given, though too much rephrasing will be counter productive.

HOME/SCHOOL LIAISON

Liaison with the child's parent is essential and can be very valuable, especially if contact is frequent. If parents know what has been talked about at school it can be reinforced at home. Sometimes things which have been made at school in such activities as cooking, can be made at home with the same language involved. In the same way news from home can be used by the teacher as a talking point with the child at school and can form the basis of early reading. A two-way diary can help to facilitate this.

MUSIC

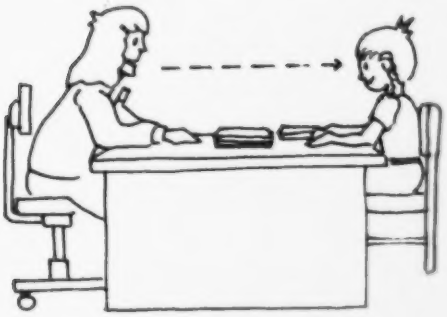
A hearing impaired child should be able to join in very happily with the rhythmic use of musical instruments, and participate in learning of simple rhythms and songs.

STORIES

Story time may pose difficulties. Stories which involve relevant illustrations and picture sequences will be more easily understood. Similarly an opportunity to participate in any dramatisation afterwards will help to clarify the plot, raise confidence and help to fix meanings to utterances.

If there is any chance of the Nursery Nurse or Welfare Assistant going through the pictures with the child beforehand, perhaps using a simplified version, then the second time round will carry much more meaning.

"Sit at child's level"



LIPREADING (SPEECH READING)

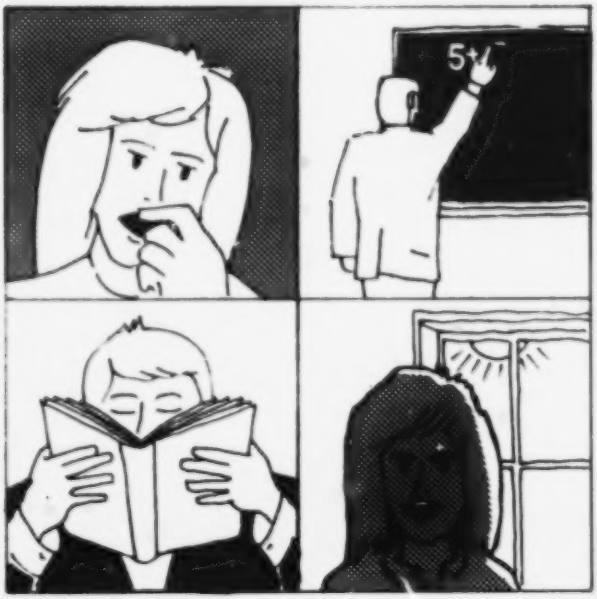
When talking to a young hearing impaired child it is helpful to bend down or sit on a chair so that lip-reading can take place in an easier face-to-face setting. The other difficulties with lipreading mentioned in section 5 also apply here.

LEARNING

At this stage a practical approach is likely to be particularly helpful in concept learning. Understanding coupled with a thorough knowledge of the words and phrases used to describe concepts in subjects such as Mathematics and Environmental subjects, will lay sound foundations.

There are moments when a child may become frustrated because of failure to understand or to be understood. Sympathetic handling on these occasions should be stressed. There are times however, when the child may simply be disobedient. Hearing impaired children in these circumstances should receive the same treatment as any other pupil.

"Difficult lipreading situations"



8 THE JUNIOR STAGE

This is a stage when children begin to make steady friendships. It is therefore important to monitor how a hearing impaired child is mixing with the others in both the classroom and the playground. (See Social Aspects). It is easy to miss instructions, but encouragement to the other children to ensure that a hearing impaired child knows what to do will make a difference. Partnering with another child in P.E./Music and Movement sessons can be particularly helpful. Giving responsibilities in class or in giving messages may also boost confidence. During the Junior stage children are encouraged to become increasingly independent and initiate ideas. This should be equally true of hearing impaired children.

In terms of conceptual development a more practical concrete approach to Maths and Environmental Studies may be useful. Specific work may be needed to teach comparative language ('heavier than', 'the longest'), description ('round', 'pointed', 'blunt', prepositions ('around', 'above'), function words ('towards', 'from', 'with'), idiomatic expressions and the use of colloquialism. Even though a hearing impaired child is talking well, the child's written work may reveal omissions, misconceptions and more limited use of language. Any reading carried out at home with parents will also need to be discussed by them to ensure understanding. Subtle checking is likely to reveal many gaps.

In terms of Environmental Studies, it can be helpful if the child has prior knowledge of discussion topics. Preparatory help from parents might enable a hearing impaired pupil to 'clue' into the subject more easily so that discussion in the classroom is easier to follow and therefore meaningful.

9 THE SECONDARY STAGE

The transition from Junior to Secondary School involves many changes and creates other difficulties. Many of the pupils in a class may not have met a hearing impaired child before. They are unlikely to understand the implications of deafness and the particular need to keep this classmate in touch in the same way that Primary School peers did. Several teachers will now be involved and it may be that they have less time for individual pupils. This may give the hearing impaired pupil a feeling of less security. It is possible to pass unnoticed. A hearing impaired pupil may begin to neglect his or her hearing aid and drift to the back of the classroom. A pattern of work much below the pupil's best standard may be established and misbehaviour may occur as a reaction to not understanding lessons. It is essential for a hearing impaired pupil to have someone from who is available to offer advice. This may be a Form teacher, or a member of staff responsible for pastoral care. It is vital that all who will be involved with the pupil are informed about the disability and its implications. If pupils are unable to monitor the use of their own aids Subject staff should check that the hearing aid is being worn and that it is working. It is important to ensure that the pupil is reasonably close to the teacher when using an individual aid. Although there may be some reluctance to sit in the front row, it is helpful if the pupil agrees to sit on the window side of the second row.

SLIDES/VIDEO/TV

If a room is blacked out for slide or film projection, lipreading is not possible. Little information may be gained from the slides or film unless the pupil is near to the teacher. A great deal may be missed when watching television or video recordings because much of the commentary is given by someone not seen on the screen. It may be possible to fit an extension lead into the Radio Aid from the television monitor, but first ensure that it has been fitted with an isolating transformer and checked by a qualified electrician.

NOTETAKING

This can present difficulties because a hearing impaired pupil cannot look at the teacher for lipreading and maintain a downward gaze for writing at the same time. It may help if a reliable classmate who takes good notes can make a carbon copy.

DICTATION

For the same reason this may bring particular problems.

ORAL INSTRUCTIONS TO THE CLASS, e.g. HOMEWORK

These are often given in a hurried fashion just as the class is about to leave. It is very easy in these circumstances for them to be missed by a hearing impaired pupil. Either the teacher or another pupil must check that the information has been understood.

UNDERSTANDING THE CONTENT OF THE LESSON

Misconception can easily occur. Even familiar language, if presented in an unusual context or without a warning of a change in subject matter, can cause confusion. An explanation of new vocabulary and a summary on the board will help. (See Section 4).

> So it is worth asking:-
> Have I checked that the pupil has understood?
> Is another pupil ensuring that the information is being understood?

Understanding during the lesson can be considerably enhanced if the pupil can be informed in advance of the subject matter to be covered. A brief word at the end of each lesson about preparatory reading for the next lesson can also work well.

A SUBTLE APPROACH

Clearly a pupil may react to too much attention, so a good working relationship based on a mutual understanding will be most productive. The needs of each hearing impaired pupil may be very different.

INTELLIGENCE

Remember that intelligence and learning potential may be much higher than is apparent and that a hearing impaired pupil should not be placed in a Remedial Group unless full consultation has taken place with the advisory/peripatetic teacher of the deaf, parents, and if necessary, the Head of Services for the Hearing Impaired.

ADOLESCENCE

Disability can complicate the problems of adolescence A pupil may still be struggling to come to terms with the disability and, as a hearing aid wearer with speech different from that of friends, may feel particularly conspicuous. Adolescent pupils may resent their hearing impairment.

GENERAL APPROACH

The pupil needs to build up confidence in speaking independently, in passing on information and contributing to oral lessons. While a normal degree of effort and behaviour should be expected in all aspects of school activity, life with a disability is a strain at times. Encouragement is often needed, especially in relationships with other pupils. Positive feedback is needed.

10 SPECIFIC QUESTIONS RAISED BY TEACHERS

'WHAT ABOUT P.E. AND GAMES?'

It is usually advisable for hearing aids to be removed for gymnastics, apparatus work and some games. A knock on the hearing aid may cause the earmould to cut the ear canal as well as damage the aid itself. It may be useful to wear the aid during music and movement or dance, providing no rolling on the floor is involved. It can be helpful if the hearing impaired child is paired with a hearing child who will capably relay instructions. Remember that if no hearing aid is worn then visual information becomes even more important.

'JANE KEEPS SAYING HER EAR IS SORE. IS SHE PUTTING IT ON?'

This may be due to one of the following:

a) New earmoulds can have rough edges.
b) The child may be allergic to the earmould material.
c) There may be fluid in the ear, particularly if the child has a cold or an ear infection.
d) Jane's ear may have been bumped in the playground. If this happens the earmould may have injured the ear canal.

In all these circumstances inform the parents and if it persists also inform the teacher of the deaf.

'SHOULD WE USE THE RADIO AID IN PRACTICAL LESSONS?'

Common sense should prevail here. The child may need it for instructions. It can also be used as a means of attracting the child's attention quickly with regard to hazards. Check that any leads and underclothing are not hanging loose. There may be problems with some older aids which could be too bulky for ease of operating lathes etc. On occasions when it is too noisy in the workshop, the aid may have to be turned down or switched off.

'SOMETIMES I FIND GEORGE NOT PAYING ATTENTION OR GAZING ROUND THE ROOM IN A DAYDREAM'

"Switching off" can be a feature of hearing impaired children. This is because listening to distorted speech can be very tiring, as anybody who has a faulty radio will experience. Lipreading can also be very tiring; it isn't easy. Some words or phrases are missed inspite of a child using all his or her lipreading and residual hearing skills. It is like watching a television with very distorted sound which is sometimes loud and sometimes scarcely audible because some speakers in the classroom will be near and others some distance away. In discussions constant monitoring is needed to check who is speaking and the first part of what is being said may be missed. If it isn't possible to see people's faces then life becomes even more difficult. In these circumstances concentration has to be at a peak and can be exhausting. There are moments, then, when a hearing impaired child is likely to 'switch off'; particularly if a teacher has been talking for some time.

'VINOD IS ALWAYS TURNING ROUND OR TALKING TO OTHER CHILDREN'

A hearing impaired child is more likely to be doing this because:

a) We monitor what is going on with our ears and often do not need to look round to know what is happening. Sounds coming through a hearing aid are more confusing and a hearing impaired child will need to scan and turn round more to monitor what is going on.

b) In classroom discussions what other children are saying may only be understood by turning round to see the speaker.

c) Checking with other children concerned what has happened, what has got to be done in an assignment and the need to seek an explanation of a concept if it is not understood.

'MICHAEL HASN'T DONE WHAT I TOLD THE CLASS TO DO'

Instructions are often given in a hurry. It is difficult for a hearing impaired child to catch everything that is said in these circumstances and as a result homework or an assignment may not be carried out in the way the teacher wanted. Where possible, make sure that the child is paying attention before giving instructions. Even in these circumstances it is more likely that a hearing impaired pupil will get the wrong end of the stick than the other children. Written instructions and encouraging the hearing impaired child to check with other pupils will help.

'CYRIL DOESN'T USE HIS HEARING AID. SHOULD I DO ANYTHING'

There may be particular problems with the hearing aid itself so the first step is to contact the teacher of the deaf.

If the conclusion is reached that the child is rejecting the hearing aid because of self-consciousness or the teasing of other children, then encouragement to the child and other members of the class to accept it may be the next step.

11 POST SCHOOL : THE FUTURE

The variety of employment which hearing impaired people have gained in the last 20 years has increased considerably. It is, however, difficult for hearing impaired pupils to reach their potential and catch up completely with their normally hearing peers by the age of 16. Continuing education can therefore be particularly important for hearing impaired youngsters. Many receive this by attending their local College of Further Education and may be supported in their studies by teachers of the deaf. There are a number of special facilities in Further Education provided throughout the country for those who need or choose a greater level of support. Further information on Further Education provision and job prospects for hearing impaired students is obtainable from:

The Royal National Institute
for the Deaf,
105 Gower Street,
London WC1E 6AH

The National Deaf
Children's Society,
45 Hereford Road,
London W2 5AH

The British Deaf Association,
38 Victoria Place,
Carlisle CA1 1HU

British Association of Teachers
of the Deaf,
Royal Schools for the Deaf,
Mr R. S. Eldridge,
Stanley Road,
Cheadle Hulme, Cheadle,
Cheshire SSK8 6RF

The National Association for
Tertiary Education of the Deaf,
Miss Rene Zannettou,
8 Glentilt Road,
Sheffield S7 2EG

BOOKS FOR FURTHER READING

The local peripatetic teacher of the deaf may have books available which you can borrow. Many local libraries hold a few general textbooks. Otherwise a telephone and postal lending service is operated by the Royal National Institute for the Deaf, 105 Gower Street, London WC1 6AH. Tel 01 387 8033.

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Bender, R E	The Conquest of Deafness (History of Deaf Education)	Western Reserve University, Cleveland, USA 196
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